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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,810	11/13/2001	Debasis Majumdar	82857LMB	5670

7590

12/12/2005

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EXAMINER

YOON, TAE H

ART UNIT

PAPER NUMBER

1714

DATE MAILED: 12/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/008,810

Applicant(s)

MAJUMDAR ET AL.

Examiner

Tae H. Yoon

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14,16,18-20,22-35 and 49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14,16,18-20,22-35 and 49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Allowability indicated in last office action is withdrawn due to new ground of rejection.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14, 16, 18-20, 22-35 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher (US 6,579,927) and Acquarulo, Jr. et al (US 6,833,392).

Fisher and Acquarulo, Jr. et al are discussed in previous office actions.

Fisher teaches a block copolymer intercalated clay and its use in a matrix polymer. One of block copolymer could be polyethylene oxide (polyether)-b-polyamide (col. 3, line 44 and col. 4, line 13). Acquarulo, Jr. et al teach the use of such block copolymer (PEBAX) with clay in examples. Fisher teaches various matrix polymer including polyolefins and polyesters at col. 3, line 22. Fisher also teaches article obtained by an extrusion meeting the instant extruded base.

It would have been obvious to one skilled in the art at the time of invention to utilize polyethylene oxide (polyether)-b-polyamide taught by Acquarulo, Jr. et al in intercalating clay and further to use said modified clay with polyolefins and polyesters in Fisher since Fisher teaches such modification and choosing species such as block copolymer and matrix resins from disclosed species is considered a routine practice in the art.

Applicant asserted that Fisher teaches the use of compatible structural units A (excellently mixable) with a matrix resin, and thus teaches away from the use of polyolefins and polyesters since said polyolefins and polyesters are miscible with polyamide. However, meaning of said compatible is very broad and indefinite. Also, said excellently mixable does not necessarily means miscible, and it can be mixed well due to similar meting point for example. Thus, a blend of polyamide and said polyolefins or polyesters does not have to be miscible each other.

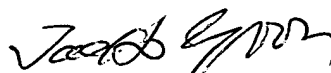
Applicant has provided several articles with respect to compatibilization (miscibility) of polyamide (PA66) and PET, polyamide (PA6) and polypropylene and amorphous polyester and polamide. However, the scope of said article is narrower than the instant invention since said polyolefines can be polyethylene and said polyester can be crystalline polymer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tae H Yoon
Primary Examiner
Art Unit 1714

THY/December 8, 2005